UNITED STATES PATENT AND TRADEMARK OFFICE

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10/626,224	07/24/2003	William O. Camp JR.	9314-45	4546

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YUN, EUGENE

ART UNIT	PAPER NUMBER
2618	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

		Application No.	Applicant(s)
Office Action Summary		10/626,224	CAMP, WILLIAM O.
		Examiner	Art Unit	
		Eugene Yun	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>05 January 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-3,7-16,19-24 and 26-29</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-3,7-16,19-24 and 26-29</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>24 July 2003</u> is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-3, 7, 8, 11, 15, 16, 19, 20, 23, and 29 are rejected under 35 U.S.C.

103(a) as being unpatentable over Rasmusson (WO 00/74350) in view of Jones et al.

(US 6,879,600).

        Referring to Claim 1, Rasmusson teaches a wireless terminal, comprising;

        a short-range communication module that is configured to communicate first

information over a short-range wireless interface with a communication device (see

communication between 201 and 203 in fig. 2);

        a cellular transceiver that is configured to communicate second information with

a cellular network according to a cellular communication protocol (see 225 and 227 of

fig. 2);

        a processor that is configured to encode the second information for transmission

by the cellular transceiver according to a signal processing operation, and is configured

to selectively encode the first information for communication by the short-range

communication module using the signal processing operation based on whether the

communication device supports an enhanced communication mode (see pg. 15, lines

11-32).

Rasmusson does not teach encoding voice in short-range and cellular communication using at least one of an Enhanced Full Rate (EFR) codec and an Adaptive Multi-Rate (AMR) codec for communication. Jones teaches encoding voice in short-range and cellular communication using at least one of an Enhanced Full Rate (EFR) codec and an Adaptive Multi-Rate (AMR) codec for communication (see col. 5, lines 34-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Jones to said device of Rasmusson in order to better reduce the excess complexity of a wireless terminal.

Referring to Claim 3, Rasmusson teaches a wireless terminal, comprising:

a Bluetooth module that is configured to communicate first information with a remote Bluetooth device (see communication between 201 and 203 in fig. 2 and pg. 14, line 30 to pg. 15, line 10);

a cellular transceiver that is configured to communicate second information with a cellular network according to a cellular communication protocol (see 225 and 227 of fig. 2);

a processor that is configured to selectively encode the first information for communication by the Bluetooth module based on whether the remote Bluetooth device supports an enhanced communication mode (see pg. 15, lines 11-32). Rasmusson does not teach encoding voice in short-range and cellular communication using at least one of an Enhanced Full Rate (EFR) codec and an Adaptive Multi-Rate (AMR) codec for communication. Jones teaches encoding voice in short-range and cellular communication using at least one of an Enhanced Full Rate (EFR) codec and

an Adaptive Multi-Rate (AMR) codec for communication (see col. 5, lines 34-51).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to provide the teachings of Jones to said device of Rasmusson in

order to better reduce the excess complexity of a wireless terminal.

Referring to Claim 15, Rasmusson teaches a method of operating a wireless

terminal, comprising:

determining whether a remote Bluetooth device supports an enhanced

communication mode (see pg. 14, line 30 to pg. 15, line 10);

selectively encoding first information for communication to the remote

Bluetooth device based on whether the remote Bluetooth device supports an enhanced

communication mode, and communicating the first information to the remote Bluetooth

device (see pg. 15, lines 11-32).

Rasmusson does not teach encoding voice in short-range communication using at least

one of an Enhanced Full Rate (EFR) codec and an Adaptive Multi-Rate (AMR) codec

according to a signal processing operation for communication. Jones teaches encoding

voice in short-range communication using at least one of an Enhanced Full Rate (EFR)

codec and an Adaptive Multi-Rate (AMR) codec according to a signal processing

operation for communication (see col. 5, lines 34-51). Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to provide

the teachings of Jones to said device of Rasmusson in order to better reduce the

excess complexity of a wireless terminal.

Referring to Claim 2, Rasmusson also teaches the short-range

communication module is configured to communicate the first information

according to a Bluetooth communication protocol (see pg. 14, line 30 to pg. 15, line 10).

Referring to Claim 16, Jones also teaches encoding voice in second information

using at least one of the EPR codec and the AMR codec according to the signal

processing operation for transmission to a cellular network (see col. 5, lines 34-51).

Referring to Claims 7 and 19, Rasmusson also teaches the first information

comprising audio information, and canceling echo in the audio information using a

signal processing operation (see pg. 17, lines 28-31).

Referring to Claims 8 and 20, Rasmusson also teaches the first information

comprising audio information, and reducing noise in the audio information using a signal

processing operation (see pg. 16, lines 27-30).

Referring to Claim 11, Rasmusson teaches a wireless terminal, comprising:

a Bluetooth module that is configured to communicate first information with a

remote Bluetooth device (see communication between 201 and 203 in fig. 2 and pg. 14,

line 30 to pg. 15, line 10);

a cellular transceiver that is configured to communicate second information with

a cellular network according to a cellular communication protocol (see 225 and 227 of

fig. 2).

Rasmusson does not teach a processor that is configured to encode the second

information for transmission by the cellular transceiver according to a signal processing

operation, and to selectively encode the first information according to the signal

processing operation for communication by the Bluetooth module based on whether the

remote Bluetooth device supports an enhanced communication mode, wherein the
processor is configured to selectively encode the first information by selectively
embedding control data in the first information based on whether the remote Bluetooth
device supports an enhanced communication mode. Jones teaches a processor that is
configured to encode the second information for transmission by the cellular transceiver
according to a signal processing operation, and to selectively encode the first
information according to the signal processing operation for communication by the
Bluetooth module based on whether the remote Bluetooth device supports an enhanced
communication mode, wherein the processor is configured to selectively encode the first
information by selectively embedding control data in the first information based on
whether the remote Bluetooth device supports an enhanced communication mode (see
col. 10, line 61 to col. 11, line 2). Therefore, it would have been obvious to one of
ordinary skill in the art at the time the invention was made to provide the teachings of
Jones to said device of Rasmusson in order to better reduce the excess complexity of a
wireless terminal.

Referring to Claim 23, Rasmusson teaches a method of operating a wireless
terminal, comprising:

Determining whether a remote Bluetooth device supports an enhanced
communication mode (see communication between 201 and 203 in fig. 2 and pg. 14,
line 30 to pg. 15, line 10).

Rasmusson does not teach selectively embedding control data in first information
for communication to the remote Bluetooth device based on whether the remote

Bluetooth device supports an enhanced communication mode. Jones teaches

selectively embedding control data in first information for communication to the remote

Bluetooth device based on whether the remote Bluetooth device supports an enhanced

communication mode and communicating the first information to the remote Bluetooth

device (see col. 10, line 61 to col. 11, line 2). Therefore, it would have been obvious to

one of ordinary skill in the art at the time the invention was made to provide the

teachings of Jones to said device of Rasmusson in order to better reduce the excess

complexity of a wireless terminal.

Referring to Claim 29, Jones also teaches selectively encoding the first

information by selectively embedding control data in the first information based on

whether the remote Bluetooth device supports an enhanced communication mode (see

col. 10, line 61 to col. 11, line 2).

3.   Claims 9, 10, 21, and 22 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Rasmusson in view of Komsi (US 7,181,252).

Referring to Claim 9, Rasmusson teaches a wireless terminal, comprising:

a Bluetooth module that is configured to communicate first information with a

remote Bluetooth device (see communication between 201 and 203 in fig. 2 and pg. 14,

line 30 to pg. 15, line 10);

a cellular transceiver that is configured to communicate second information with

a cellular network according to a cellular communication protocol (see 225 and 227 of

fig. 2).

Rasmusson does not teach a processor that is configured to convolutionally

encode the second information fro transmission by the cellular transceiver according to

a signal processing operation, and to selectively convolutionally encode the first

information according to the signal processing operation for communication by the

Bluetooth module based on whether the remote Bluetooth device supports an enhanced

communication mode. Komsi teaches a processor that is configured to convolutionally

encode the second information fro transmission by the cellular transceiver according to

a signal processing operation, and to selectively convolutionally encode the first

information according to the signal processing operation for communication by the

Bluetooth module based on whether the remote Bluetooth device supports an enhanced

communication mode (see col. 6, lines 18-33). Therefore, it would have been obvious to

one of ordinary skill in the art at the time the invention was made to provide the

teachings of Komsi to said device of Rasmusson in order to provide better security for

short range wireless terminals.

Referring to Claim 10, Rasmusson teaches a wireless terminal, comprising:

a Bluetooth module that is configured to communicate first information with a

remote Bluetooth device (see communication between 201 and 203 in fig. 2 and pg. 14,

line 30 to pg. 15, line 10);

a cellular transceiver that is configured to communicate second information with

a cellular network according to a cellular communication protocol (see 225 and 227 of

fig. 2).

Rasmusson does not teach a processor that is configured to interleave the

second information fro transmission by the cellular transceiver according to a signal

processing operation, and to selectively interleave the first information according to the

signal processing operation for communication by the Bluetooth module based on

whether the remote Bluetooth device supports an enhanced communication mode.

Komsi teaches a processor that is configured to interleave the second information fro

transmission by the cellular transceiver according to a signal processing operation, and

to selectively interleave the first information according to the signal processing operation

for communication by the Bluetooth module based on whether the remote Bluetooth

device supports an enhanced communication mode (see col. 6, lines 18-33). Therefore,

it would have been obvious to one of ordinary skill in the art at the time the invention

was made to provide the teachings of Komsi to said device of Rasmusson in order to

provide better security for short range wireless terminals.

Referring to Claim 21, Rasmusson teaches a method of operating a wireless

terminal, comprising:

Determining whether a remote Bluetooth device supports an enhanced

communication mode (see communication between 201 and 203 in fig. 2 and pg. 14,

line 30 to pg. 15, line 10).

Rasmusson does not teach selectively convolutionally coding first information for

communication to the remote Bluetooth device based on whether the remote Bluetooth

device supports an enhanced communication mode. Komsi teaches selectively

convolutionally coding first information for communication to the remote Bluetooth

device based on whether the remote Bluetooth device supports an enhanced

communication mode and communicating the first information to the remote Bluetooth

device (see col. 6, lines 18-33). Therefore, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to provide the teachings of

Komsi to said device of Rasmusson in order to provide better security for short range

wireless terminals.

Referring to Claim 22, Rasmusson teaches a method of operating a wireless

terminal, comprising:

Determining whether a remote Bluetooth device supports an enhanced

communication mode (see communication between 201 and 203 in fig. 2 and pg. 14,

line 30 to pg. 15, line 10).

Rasmusson does not teach selectively interleaving first information for

communication to the remote Bluetooth device based on whether the remote Bluetooth

device supports an enhanced communication mode. Komsi teaches selectively

interleaving first information for communication to the remote Bluetooth device based on

whether the remote Bluetooth device supports an enhanced communication mode and

communicating the first information to the remote Bluetooth device (see col. 6, lines 18-

33). Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to provide the teachings of Komsi to said device of Rasmusson

in order to provide better security for short range wireless terminals.

4.   Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rasmusson and Jones and further in view of Kozmi.

Referring to Claim 27, the combination of Rasmusson and Jones does not teach a processor that is configured to convolutionally encode the second information fro transmission by the cellular transceiver according to a signal processing operation, and to selectively convolutionally encode the first information according to the signal processing operation for communication by the Bluetooth module based on whether the remote Bluetooth device supports an enhanced communication mode. Komsi teaches a processor that is configured to convolutionally encode the second information fro transmission by the cellular transceiver according to a signal processing operation, and to selectively convolutionally encode the first information according to the signal processing operation for communication by the Bluetooth module based on whether the remote Bluetooth device supports an enhanced communication mode (see col. 6, lines 18-33). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Komsi to the modified device of Rasmusson and Jones in order to provide better security for short range wireless terminals.

Referring to Claim 28, Kozmi also teaches a processor that is configured to interleave the second information fro transmission by the cellular transceiver according to a signal processing operation, and to selectively interleave the first information according to the signal processing operation for communication by the Bluetooth

module based on whether the remote Bluetooth device supports an enhanced

communication mode (see col. 6, lines 18-33).

5.   Claims 12-14, 24, and 26 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Rasmusson and Jones and further in view of Kim (US

2002/0065045).

Referring to Claims 12 and 24, the combination of Rasmusson and Jones does

not teach the remote Bluetooth device comprising a cordless telephone base station

that is configured to be connected to a public switched telephone network (PSTN) 60

(fig. 2), and wherein the processor is configured to communicate through the Bluetooth

module with the cordless telephone base station. Kim teaches the remote Bluetooth

device comprising a cordless telephone base station that is configured to be connected

to a public switched telephone network (PSTN), and wherein the processor is

configured to communicate through the Bluetooth module with the cordless telephone

base station (see paragraph [0023]). Therefore, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to provide the teachings of

Kim to the modified device of Rasmusson and Jones in order to better enhance the

quality of short range communications.

Referring to Claim 13, Rasmusson also teaches the processor is configured to

selectively embed control data in the first information based on whether the remote

Bluetooth device supports an enhanced communication mode, and wherein the control

data comprises a command to control operation of the cordless telephone base station

(see pg. 15, lines 11-32).

Referring to Claim 14, Kim also teaches the control data instructs the cordless

telephone base station to terminate a call on the PSTN (see paragraph [0023]).

Referring to Claim 26, Jones also teaches the control data selectively embedding

in the first information comprising a command to control operation of the cordless

telephone base station (see col. 10, line 61 to col. 11, line 2).

Response to Arguments

6.   Applicant's arguments with respect to claims 1-3, 7-16, 19-24, and 26-29 have

been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Eugene Yun whose telephone number is (571) 272-

7860. The examiner can normally be reached on 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Matthew D. Anderson can be reached on (571)272-4177. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eugene Yun
Examiner
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Matthew D. Anderson
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